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10/709,693	05/24/2004	RYAN THOMAS BECHARD		3692

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DOUGLAS L. TSCHIDA
633 LARPENTEUR AVE. WEST, SUITE B
ST. PAUL, MN 55113

EXAMINER	
COCKS, JOSIAH C	
ART UNIT	PAPER NUMBER
3749	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/709,693	BECHARD, RYAN THOMAS	
	Examiner	Art Unit	
	Josiah Cocks	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *paper filed through 2/15/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *21-24,26,27,30,32 and 40-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-24,26,27,30,32 and 40-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 February 2007* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination ("RCE") under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's RCE submission and accompanying amendment filed on February 15, 2007 have been entered.

Drawings

2. The informal drawings filed February 15, 2007 showing the proposed addition of reference characters to identify described elements are NOT approved by the examiner. Applicant now identifies the darkened portion on nozzle 2 in Figs. 4 and 6 using reference character 27 and describes that this portion is a seal having particular functionality. For the reasons noted below, the examiner does not consider that applicant's disclosure, as originally filed, supported the characterization of this darkened portion as a seal having any particular function. Accordingly, the proposed drawings now labeling this darkened portion are not approved.

In regard to the labeling of reference character 43 for previously unnumbered channel shown in Figs. 4 and 6, this change would be approved if submitted to omit the reference character 27.

Specification

3. The amendment filed February 15, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- The recitation that the heated liquid passageway comprises "continuous, unbroken" liquid channels or that the oil channel is "continuous" was not shown or described in the disclosure as originally filed.
- The recitation "cavity 26 supports and seals an aft end of nozzle 2 with a seal 27" was not shown or described in the application as originally filed. There is no indication in the application was originally filed that the darkened portion at the end of the nozzle (2) in Figs. 4 and 6 was any component of applications invention, let alone a seal that particularly functioned to seal off an aft end of the nozzle from cavity 26.

Applicant is required to cancel the new matter in the reply to this Office Action.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- The specification does not describe a passageway having a narrowed region as described in claims 30 and 32. It appears that the narrowed region referred to

describes the region shown with reference character 41 in Figs. 3 and 4. Application must amend the specification to provide proper antecedent basis for claim terminology.

- As was previously noted by the examiner the terms first cavity and second cavity do not appear in the specification. Applicant has amended the specification to recite that the presence of a single cavity (42). However, applicant must provide proper antecedent basis in the specification for each of the two cavities. As was previously noted, the term "first cavity" is considered to describe the channel (26) shown in Fig. 5 and 6. The term "second cavity" is considered to describe the space that receives nozzle (2) (i.e. cavity/channel 42).

Applicant is also advised to review all claims presented, as all terminology in the claims must have proper antecedent basis in the specification

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 21-24, 27, 30, 32 and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- Claims 21, 24, and 41 now recite that one or all of the first, second and third channels are "continuous, unbroken" channels. However, this description of the channels is not adequately supported by the application as originally filed. Neither the specification nor figures as originally filed characterize the channels as being "continuous" or "unbroken". Applicant now argues that the "continuous, unbroken" characterization patentably distinguishes applicant's invention over the prior art. However, a person of ordinary skill in the art would not have regarded applicant's original disclosure to suggest such an arrangement.
- Claims 22 and 27 recite that the nozzle includes a plurality of air atomizing ports and includes a step of coupling a source of air to the atomizing ports such that the air is isolated from mixing with the oil until the oil is emitted from the nozzle. Applicant's disclosure as originally filed shows only a nozzle (2) having a single illustrated (but unnumbered port, see Fig. 1). Applicant's description of the atomization of oil is presented for instance in paragraph [0006] of the specification and includes no recitation of multiple air atomizing ports or of isolation of the air and oil until the oil is emitted from the nozzle.
    - It appears that applicant, in reciting the term "ports", may intend to refer to the newly identified air channel (43) or the space surrounding the nozzle, although the examiner notes that only a single channel (43) is shown (see e.g. Fig. 4). However, as the term "ports" is commonly

understood in the art as an opening, for the purpose of an examination on the merits the term "ports" has been given the definition that would be commonly understood in the art to refer to openings at the head of the nozzle through which fluid is ejected rather than the channels or conduits leading up to the openings/ports.

- Claim 32 recites that a "seal" is "mounted in said first cavity to engage said nozzle to prevent oil from entering said second cavity". However, as best can be determined, no such seal or sealing operation is described or disclosed in applicant's specification or figures as originally filed.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 42 is dependent upon itself. However, it appears applicant intends to make claim 42 dependent upon claim 41 and has been considered as such for the purpose of an examination on the merits.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. **Claims 21-24, 26, 27, 30, 32 and 40-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,156,139 to Wilson Jr. ("Wilson") in view of U.S. Patent No. 2,976,918 to Leach ("Leach") and U.S. Patent No. 5,067,894 to Bender ("Bender").

Wilson discloses in the specification and Figs. 1-4 a method of operating an oil burner and an oil burner assembly in the same field of endeavor as applicant's invention and similar to that described in applicant's claims 21-24, 26, 27, and 40-42.

In particular, in regard to at least claim 24, Wilson shows an oil burner assembly having a a) manifold i) constructed of a unitary body of thermally transmissive material (see abstract), and ii) having first (22) and second (14) passageways. As shown in Fig. 2, first passageway (22) extends from inlet (22a) to outlet (22b) and forms an continuous and unbroken passageway (note flow arrows illustrated in Fig. 2 and col. 6, lines 29-31). As shown in Fig. 1, second passageway (14) is a straight, continuous, unbroken path. Wilson further shows that the first passageway (22) terminates in a first cavity (see enlarged exit cavity at left side of Fig. 2) wherein a portion of a nozzle (8) having an oil distribution port mounts in sealed engagement to the first cavity (note nozzle 8 is necessarily sealed so that flow is ejected from the central unnumbered port, see Fig. 1). Wilson also necessarily is connected to b) a source of oil so that oil is transmitted to passageway (22).

In regard to at least claim 26, each of the passageways (22 and 14) are separated from one another and accordingly considered to be located in separate tiers/layers. Further, the

undulations of passageway (22) (described also as a controlled labyrinth, see col. 6, line 60), are considered to represent the convoluted and riser portions recited.

In regard to at least claim 27, note third passageway (16) that terminates in a second cavity that is coaxially coupled to the first cavity (see Fig. 1 and note passageway 16 feeds into a cavity that is coaxial with the enlarged exit cavity of passageway 22). Wilson

In further regard to at least claim 27 and the recitation of a plurality of air atomizing ports, the examiner notes that the air atomizing nozzle (8) of Wilson appears to be identical in structure to the air atomizing nozzle (2) shown for instance in applicant's Fig. 1. Therefore, to the extent that applicant's nozzle shows multiple air atomizing ports, Wilson is regarded to also suggest these ports. Alternative, the examiner notes that even if Wilson is not considered to show a plurality of atomizing ports, it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See MPEP 2144.04(VI)B). In this case, merely adding additional air atomizing ports would produce the expected result of providing additional atomizing air and does not serve to patentably distinguish applicant's invention.

In regard to at least claims 30 and 32, the air passageway (16) in Wilson is narrower than passageway (22). Further, this narrower passageway (16) receives compressed air which would be provided from the un-shown air or blower assemblies (see col. 4, line 56). Accordingly, air passageway (16) is considered to have a "narrowed region" as recited.

In regard to at least claims 40-42, Wilson shows an oil burner assembly having a manifold constructed of a thermally transmissive material (see abstract), first (22), second (14), and third (16) internal passageways, and a supported nozzle (8) having an oil distribution port

and an atomizing port (see at least col. 2, lines 46-52). Source of oil and pressurized air are connected to the first (22) and third (16) passageways respectively and are arranged such that the air and oil are heated by a heating element arranged in the second passageway (14) (see col. 5, lines 47-48) before being discharged from the nozzle (8) (see at least col. 6, lines 28-42). The structural arrangement of the passageways, cavities and the nozzle ports are shown as recited in applicant's claims (see at least Figs. 1 and 2, and note cavities 22B and enlarged exit cavity of 22 and nozzle port 8). Each of the passageways, 16, 22, and 14 are separated from one another and accordingly considered to be located in separate tiers/layers. Further, the undulations of passageway (22) (described also as a controlled labyrinth, see col. 6, line 60), are considered to represent the convoluted and riser portions recited.

In further regard to at least claims 41 and 42, note that each of the three channels (22, 14 and 16) are considered to be continuous and unbroken as recited (see at least Figs. 1 and 2 and col. 6, lines 39-33).

In regard to at least claims 21-23, the method of operating an oil burner having the method steps recited in this claims are considered substantially disclosed in the operation of the burner assembly of Wilson as noted above.

Further, in regard to at last claims 22 and 23 the examiner notes that it has been held that while the mere inclusion of structure in a method claim does not render it unstatutory or fatally defective. The structural limitation is of no patentable moment unless it affects the process in a manipulative sense. See *Ex parte Kangas*, 125 USPQ 419 (PTO Bd. App. 1960). In this case, while the examiner has asserted the structure recited in the method claims 22 and 23 to be present in the prior art, the method claims are drawn to a method of operating a burner such that

the structure of the manifold does not affect the method in a manipulative sense and, accordingly, is "of no patentable moment".

Further, in regard to claims 22 and 27, as the air atomizing nozzle (8) of Wilson appears identical to the air atomizing nozzle (2) of applicant's invention, the function of the atomizing the oil immediately upon said oil being emitted from the nozzle is considered to suggested by the nozzle of Wilson.

Wilson possibly does not explicitly show an igniter or step of igniting and does not show a source of heated liquid or providing such a source to the second passageway.

In regard to the recitation of an igniter and the step of igniting, the nozzle of Wilson is clearly indicated to create a flame (e.g. see abstract), however, there is no detail as to what effects the creation of a flame. However, it is well understood in the art that ignition is provided for the nozzle of an oil burner via an igniter mounted adjacent the nozzle exit. Support for this assertion is found in the reference to Bender. Bender teaches an oil burner assembly in the same field of endeavor as both applicant's invention and Wilson. In Bender, the oil is ignited from a nozzle via an adjacent igniter (107). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the igniter of Bender in the burner of Wilson to desirably ignite the fuel and air mixture as it is sprayed from the nozzle (see Bender, col. 3, lines 21-23).

In regard to the recitation in the claims of a source of heated liquid and step of providing the heated liquid to the second passageway. In Wilson, a passageway is shown that receives a heating element but does not go into further detail as to the particulars of this heating element. Leach teaches an oil burner assembly in the same field of endeavor as both applicant's invention

and Wilson. In Leach, shows a device (10) for preheating heavy oil in a oil burning system (burner 100 and furnace 101) and method of preheating the oil that includes a body (12) made of thermally conductive material and includes an oil passageway (34, 39) and a liquid passageway (interior of housing 12) in which, heated in tank (67) is supplied via line (66). Oil passing through the oil passageways is heated in order to prevent the oil from becoming to too thick to properly flow to the combustion assembly (see col. 1, lines 18-47).

Therefore, in regard to claims 21-24, 26, 27, and 40-42 it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the oil heating device of Wilson to incorporate a heating means that includes a heating liquid as taught in Leach to desirably provide a oil preheating device that is simple in construction and efficient in operation (see Leach, col. 1, lines 43-47). Leach specifically notes that an adjacent electrical or gas heating unit (such as what appears to be present in Wilson) has a possible disadvantage of not being able to heat the oil uniformly (see Leach, col. 1, lines 27-35). Accordingly, a person of ordinary skill in the art would reasonably modify the heating element of Wilson to include a heated liquid passageway arrangement in the passageway structure (14) of Wilson to obtain the uniform oil heating benefit that, as noted above, is recognized in the art to be simple in construction and efficient in operation.

Response to Arguments

11. Applicant's arguments filed February 15, 2007 have been fully considered but they are not persuasive.

Applicant again argues that Wilson discloses that passageway (14) is only capable of functioning to receive an electric heater. The examiner respectfully disagrees.

In response, the examiner notes that while Wilson describes broadly the use of a "heating element," even if such a disclosure where considered to suggest only the use of an electric heater, this is not sufficient to distinguish applicant's invention as the examiner has relied on both Wilson and Leach to suggest the heating components of applicant's invention. The examiner has admitted that the "heating element" of Wilson does not suggest a heated liquid passageway as claimed by applicant. However, the examiner has turned to the teachings of Leach to supply the deficiency. As noted above, Leach discloses an oil heating device in the same field of endeavor as Wilson and includes passageways that receive oil, air, and a heated liquid (water). Leach further provides a clear suggestion that the use of the liquid heated passageway is a improvement over typical prior heating arrangements that include an electric or gaseous heater to heat the oil (such as in Wilson). Applicant appears to argue that the liquid heated passageway of Leach could not be bodily incorporated into the manifold of Wilson. However, the examiner notes that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, combined teaching of Wilson and Leach suggest that in an oil burner assembly a person of ordinary skill in the art would reasonably consider that a liquid heated passageway (such as a that of Leach) would be

substituted for a gas or electric heating element (such as that of Wilson) to provide for uniform heating of the fuel oil.

Applicant also asserts that the passageway (14) of Wilson is "closed-ended." The examiner respectfully disagrees.

In response, the examiner notes that as shown in Fig. 1 of Wilson, at least one end of passageway (14) is open in order to allow a heating device to be inserted and removed. Accordingly, passageway (14) does not have two closed ends to be regarded as "closed-ended".

Applicant also argues that applicant's invention is distinct from the at least Wilson because of the sealing elements and functioning now recited in applicant's claims.

In response, the examiner notes that as described above, applicant's originally disclosure contained no reference to a seal or to any desirable function provided by a seal. Applicant now asserts that the unnumbered darkened portion of Figs. 4 and 6, which was not described in the specification as originally field, is a seal that should be considered to form a patentably distinguishing feature of applicant's invention. The examiner respectfully disagrees and directs applicant's invention to the issue of new matter addressed above.

Applicant also again appears to argue that the oil preheating assembly of Leach only suggests a displaced liquid preheater assembly. However, in response the examiner notes that the claims have been rejected, at least in part, on the combined teachings of Wilson in view of Leach and not on Leach alone. One cannot show nonobviousness by attacking references

individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, the examiner considers that Wilson shows an oil burner assembly that is similar to that disclosed by applicant. As noted above, the assembly in Wilson includes a manifold with an air passageway, an oil passageway, and a passageway that receives a heating device. The heating device is specifically noted to be within the manifold/block (20) (see Wilson, col. 5, line 48) and is specifically intended to heat the air and fuel prior to reach the nozzle (8) (see Wilson, col. 6, lines 38-43). Turning to Leach, the examiner considers that the preheating assembly (10) is analogous to the manifold of Wilson in that it includes a housing (12) with an interior air passageway, oil passageway, and a heating passageway that receives a heated liquid in order to heat both the oil and air passageways (see Leach, at least col. 2, lines 28-70). The examiner considers that taken together, these references would reasonably suggest to a person of ordinary skill in the art to modify the heating element passageway of Wilson (item 14) to incorporated a liquid heating passageway as taught in Leach as the arrangement of such a liquid heating passageway in relationship to an oil and air passageway provides for a uniform heating of the oil. This uniform heating of oil provided by an interior liquid heating passageway being a recognized benefit over the use of a gas or electric heating element, such as that shown in Wilson, which causes the oil to become undesirably thick (see Leach, col. 1, lines 18-34).

Further, the examiner notes that applicant appears to be drawing a distinction between the term "preheater" as used in Leach and a burner assembly as asserted to be disclosed in applicant's invention (see response, p. 15). However, review of applicant's specification reveals

that applicant refers to his own assembly as a "preheater" (see the specification, at least paragraph [0045]). Accordingly, the use of their terminology in applicant's own specification belies the assertion that "preheater" and "burner assembly" connote distinct devices.

Applicant also argues that none of the cited references suggest the use of a heated liquid passageway. The examiner respectfully disagrees.

As noted above, Leach clearly provides that using a heated liquid, in place of a electric or gas heating device, in order to heat the oil of an oil burner is desirable (again see Leach, col. 1, lines 27-34). Further, contrary to applicant's assertion, the disclosure in Wilson that his heating device may be used in a hot water tank does not render Leach redundant. This disclosure in Wilson is regarded to support, rather than teach away from, the use of a liquid as a heating mechanism. Wilson clearly provides that when used in conjunction with a water tank the heated water would flow around all the surfaces with define all of the heat exchange volumes of the heat exchanger (i.e. including heating conduit/tube 14). To this end Wilson states:

> "The controlled labyrinth heat exchanging oil nozzle assembly 10 could be mounted in a vertical or a horizontal attitude within the tank. Water need only be made to flow over or surround the surface which define all of the heat exchanger volumes of the heat exchanger..." (Wilson, col. 7, lines 1-6).

Accordingly, the suggestion in Wilson is that when placed in a heated water housing (such as that of Leach), the water, serving as a liquid heating means, would be passed through or within conduit (14) thus rendering this conduit a liquid heating conduit.

Applicant also again appears to suggest that the teachings of Bender have been misapplied, stating;

> "Bender is cited for showing an igniter 107, a fan/turbine 108, and oil pump 110 which the examiner conveniently combines with Wilson and/or Leach to and argues obviates applicant's claims." (applicant's response, p. 11)

It is unclear from this statement is applicant is asserting that the igniter, fan, and oil pump recited in applicant's claims patentably distinguish applicant's invention. However, the examiner notes that applicant's claims no longer recite the elements of the fan and oil pump. Further, Bender has now been applied solely to support the assertion that a person of ordinary skill in the art would clearly understand that in order to function as an oil burner assembly, the assembly of Wilson would include an igniter to ignite the oil spray in the manner clearly suggested in Bender. Therefore, to the extent that applicant argues an igniter is a patentably distinguishing characteristic of applicant's invention, the examiner respectfully disagrees.

In summary, the examiner notes that it has been held that under 35 U.S.C. § 103, a reference must be considered not only for what it expressly teaches, but also for what is fairly suggests (*In re Burckel*, 592 F.2d 1175, 1179, 201 USPQ 67, 70 (CCPA 1979); *In re Lamberti*, 545 F.2d 745, 750, 192 USPQ 278, 280 (CCPA 1976)), as well as the reasonable inferences which the artisan would logically drawn from the reference. See *In re Shepard*, 319 F.2d 194, 197, 138 USPQ 148, 150 (CCPA 1963).

In this case, as described above Wilson discloses substantially all the limitations of claims with the exception of two features, an igniter and the use of passageway that receives a heated liquid in order to affect the heating of the oil of the oil burner. However, each of these deficiencies would have been reasonably and fairly suggested by the secondary references relied upon by the examiner, namely Bender and Leach. Bender clearly shows the use of an igniter, as

expected, to enable ignition of the oil stream. Leach clearly provides a suggestion that the use of using a heated liquid to facilitate heating of the oil of an oil nozzle. Further, Leach expressly notes that electric or gaseous heating devices (such as that of Wilson) are desirably replaced with a heated liquid in order to uniformly heat the oil (see Leach, col. 1, lines 27-34). In doing so, a person of ordinary skill in the art would reasonably infer that the heated liquid would flow through the passageway (14) of Wilson which is expressly intended to contain the heating source. As such, while applicant's arguments have been carefully considered, the examiner respectfully disagrees that applicant's claims are patentably distinct from the suggestions of the prior art.

Accordingly, applicant's claims 21-24, 26, 27, 30, 32 and 40-42 are not considered to patentably distinguish applicant's invention over the prior art of record.

Conclusion

12. This action is made non-final. A THREE (3) MONTH shortened statutory period for reply has been set. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on M-F 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Rinehart, can be reached on (571) 272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jcc
April 26, 2007

JOSIAH COCKS
PRIMARY EXAMINER
ART UNIT 3749